SBIR Newsletter November 2002

- **Feature Story:** The Discovery Trail: Developing a Commercialization Plan
- **Competition Tips:** Javelin's Commercialization Success Takes Many Forms
- **National Conferences & Workshops:**
  March 10 - 13, 2003 -National SBIR Early Spring Conference - Albuquerque, NM
  April 22 - 24, 2003 - National SBIR Spring Conference - Washington, DC

If you have questions or subjects you would like covered, please contact Linda Brander, SBIR Outreach Coordinator or call (406) 841-2749.

1.0 The Discovery Trail: Developing a Commercialization Plan

Do you know the difference between a business plan and a commercialization plan? No, it isn't a set up for a joke. It's a serious point of clarification for successfully commercializing technology.

"A commercialization plan allows you to develop a bucketful of ideas and then prioritize what makes sense to pursue and what raises red flags," says Marcia Rorke, president, Mohawk Research Corp., Rockville, MD. "Once you've identified the applications for your technology, you can begin a business plan for each application with high potential returns."

A commercialization plan asks: what can we make, what can we sell, and what is worth doing? A business plan asks: can we make it, can we sell it, and is it worth it? You need the "it," the application identified in the commercialization plan, to write a business plan.

Most SBIR agencies require that a commercialization plan be part of the Phase II proposal. But your commercialization planning can start in Phase I. "In early development stages, not all of the information needed for a commercialization plan will be available. However, you can do a simple plan and keep adding information to it as your project develops," Rorke says.

Rorke uses the following commercialization plan outline in helping companies commercialize their products and technology.

- **Executive Summary:** Contrary to what you might think, Rorke stresses that this section should be written first; then it will need constant revision and refinement as the project and the correlating planning process advance. "In almost all cases, this section will be the shortest [under two pages] but it will probably prove to be the most difficult to write," she says.
- **Project Summary:** This section makes the case for commercialization from the point of view of the project personnel and their organization by answering questions such as: What has the project done so far? How does it align with the

organization's resources and objectives? Why is it focused on this particular R&D area? What is the level of commitment, and where are the exit points? These types of questions are addressed in subsections on:

  - *Project Description*
  - *Project Rationale*
  - *Project Management*
  - *Technology Dependencies*

- **Internal Factors:** This section is similar to the Project Summary but with a greater focus on the organization. It details where the project fits within the company's goals and outlines steps for developing nonfinancial resources currently not available within the organization. Points to address fall under three main areas.
  - *Organizational Resources:* current personnel, facilities and other organizational assets such as R&D capabilities, business relationships and so on.
  - *Organizational Issues:* technical competencies needed; other internal resources needed; current partnerships; anticipated risks, probability of success and potential benefits; and a summary of the project in terms of partnership development, technical development and market development. "This is where you identify your 'go/no go' decision points," Rorke says.
  - *Applications Analysis:* the many uses for your technology; anticipated target industries; contacts and assets within these industries; and rationale for developing technology for applications within these industries.
- **External Factors:** "The same technology may well show potential as a product, a process or a service, and have applications across an array of industries, markets and uses," says Rorke, "Multiple potentials should be explored thoroughly, to the extent possible, before you commit to a particular partnering arrangement." This section has two major purposes: (1) defining and sorting potential applications, and (2) identification of appropriate partners for each potential application. Break-out sections under External Factors are:
  - *Industry analysis for each application.*
  - *Partnership requirements for each application.*
- **Prioritize:** At this point in your planning process, it is time to review your research and prioritize your options.
  - *Determine how external barriers to partnering will be overcome.*
  - *Identify current partners and potential partners, specifying potential contributions each would make to commercialization.*
  - *Rank technology applications and potential partners.*
- **Re-prioritize as appropriate.** Select the applications with the greatest potential to pursue further.
- **Deployment:** Now you're ready to write one or more business plans. "Hopefully, by this point you will be down to three possibilities," Rorke says. "You now should develop a product-specific technical development and market plan for each high-potential application." Examine each for red flags. Put aside applications with significant red flags and move on to the next. The purpose of this section of your commercialization plan is not only to demonstrate that at least one viable

track exists, but also to show potential partnerships that your application has merit when judged against the applications you set aside. You are proving commercial feasibility by demonstrating that you know what resources are needed to enter the marketplace and what returns you can expect. Your business plans should each include:

- *Project overview*
- *Market analysis*
- *Production definition*
- *Partner assessment (if appropriate)*
- *Intellectual property*

See the Resources section for Mohawk Research contact information. You can also contact the Montana Department of Commerce SBIR Outreach Program for assistance in commercialization planning.

2.0 Competition Tips: Javelin's Commercialization Success Takes Many Forms

With numerous SBIR grants under her belt from the Department of Defense, the National Science Institute, the National Institute of Health and NASA, as well as grant funding from the Department of Energy, Alair Emory obviously knows how to write a successful grant proposal. But she's just as successful commercializing the products and technologies developed by her two Salt Lake City-based companies, Javelin, an industrial design and materials development firm specializing in three-dimensional imaging technology, and Image3, which licenses Velocity 2 software with three-dimensional design capabilities for industrial applications.

"We've commercialized in every way possible. We've built and sold equipment, licensed software and provided in-house service. The commercialization decision is based on whatever way will get the product or technology out there so we can start making some money on it," Emory says.

Emory offers the following tips on the commercialization process to other SBIR candidates.

- **Build in flexibility:** "The SBIR Program encourages you to be definite in your commercialization planning, but I find it's like kids - you can't really look at them when they are babies and know what they'll do as grown-ups," she says. "You can't be dead-set in one direction. You need to have a plan, of course, but you also need to have that flexibility that small businesses are known for." If an opportunity comes up that wasn't one of your priority applications, be flexible enough to consider it.
- **Try hard not to write a proposal.** Emory regularly reviews SBIR topic areas seeking opportunities for existing ideas and future possibilities. When she finds a "hit," she works as hard as she can to find a reason not to pursue it. "I try to write proposals only when I can't find a good reason not to, so I do a lot of research

trying to destroy our concept. It saves time in the long run. You'll be surprised how many times you think you have a great idea and then find out that someone else already went bankrupt pursuing it," she says. Emory recently avoided writing a proposal when she followed up on a DoD SBIR category request for new helmet liners. Her patent search revealed an existing patent application that would cover the military solution.

- **Don't be afraid to set aside a good idea.** You can have a great idea but after exploring it, conclude that it doesn't fit with your company. Or you may find out that the end result isn't worth the effort. Javelin has a technology solution that if developed would meet the need of a single large medical corporation. The medical company has repeatedly asked Emory to write an SBIR proposal to get the funding to develop the technology. She hasn't done it because the only application for the new technology would be supporting the medical company's proprietary technology. "They should pay us to do the research and not expect the government to pay us to solve their problem. That's not the purpose of the SBIR program," she says.
- **Carefully weigh the risk to your company.** "If it involves significant risk for the company, maybe it isn't that great of an idea and you should rethink it. If the idea is a good one, funding should fall together pretty easily. Small businesses can be wiped out in a very short time if they don't have cash liquidity," Emory says.

  Finding a partner and/or financing also poses risk that should be carefully considered. Although Emory has met with venture capital firms, none has yet invested in Javelin and she no longer seeks that type of financing. "They want a percentage of the company. I own 52 percent and if that were diluted, we would lose our women-ownership status," says Emory, who is very much a hands-on owner. "Each deal we've started to get into has fallen apart over that issue, because when they put their money in, they want to run the show. With military contracting in particular, there are specific regulations about women ownership. If they find that others are running the business and the woman is a figurehead, they'll prosecute."

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3.0 Department of Commerce and University of Montana to Award SBIR Phase 0 Grants

The Department of Commerce's Small Business Innovation Research Program in conjunction with the University of Montana will award eight $5,000 SBIR competition assistance grants to Montana businesses. $40,000 is being made available through the University of Montana's EPSCoR funds. The deadline for submittal of the Phase 0 grants is December 2, 2002 at 5:00 PM.

The purpose of the Phase 0 grant program is to provide financial assistance to businesses to help with the costs of preparing SBIR Phase 1 proposals, expand the number of Montana companies seeking research and development funds through the SBIR program, and to improve the success rate of SBIR proposals submitted by Montana businesses.

Proposals must be submitted to Linda Brander, Montana Department of Commerce SBIR Program Manager, by 5:00 p.m. on December 2, 2002. Details on the Phase 0 Grant Program and submission requirements can be found on the SBIR website: www.sbir.state.mt.us.

WE DO OUR BEST TO IDENTIFY EVERY AWARD WINNER, BUT WE MAY HAVE ACCIDENTALLY MISSED YOUR COMPANY. IF WE HAVE, PLEASE NOTIFY LINDA BRANDER (406) 841-2749 or lbrander@state.mt.us

4.0 Solicitations

Open Solicitations			
Program	**Release Dates**	**Accepts Proposals**	**Closing Dates**
DOC-NIST	1 Nov 2002	1 Nov 2002	15 Jan 2003
DOE SBIR	15 Oct 2002	15 Oct 2002	14 Jan 2003
DOC-NOAA	15 Oct 2002	15 Oct 2002	15 Jan 2003
DoD SBIR - 2003.1	1 Oct 2002	2 Dec 2002	15 Jan 2003
HHS/Trans-NIH SBIR PA (Grants) Bioengineering Nanotechnology Initiative	3 Jun 2002	3 Jun 2002	1 Aug 2002 1 Dec 2002
NSF SBIR/STTR for BT & EL only	1 Mar 2002	1 Oct 2002	22 Jan 2003
HHS/NIH SBIR/STTR (Grants) Non-Aids related Topics	15 Jan 2002	15 Jan 2002	1 Apr 2002 1 Aug 2002 1 Dec 2002
HHS/NIH SBIR/STTR (Grants) AIDS Related Topics Only	15 Jan 2002	15 Jan 2002	1 May 2002 1 Sep 2002 1 Jan 2003
HHS/FDA SBIR (Grants)	15 Jan 2002	15 Jan 2002	1 Apr 2002 1 Aug 2002 1 Dec 2002

For a complete overview of all solicitations go to: http://www.zyn.com/sbir/scomp.htm

5.0 National Conferences & Workshops

March 10 - 13, 2003 -National SBIR Early Spring Conference - Albuquerque, NM

The National Science Foundation, in association with the Dept. of Defense and the Small Business Administration and all 10 SBIR agencies, is sponsoring this Spring National SBIR Conference.

SBIR Program Managers and representatives from all participating agencies will provide insight into how to work with their respective agencies and answer your own special questions during the one-on-one opportunities.

The conference will be held at the Hyatt Regency, Albuquerque

Contact: Yvonne Brandau - ybrandau@iirusa.com - Phone: 800-345-8016 X3705

April 22 - 24, 2003 - National SBIR Spring Conference - Washington, DC

Attend the National SBIR Conference and learn how to successfully apply for and manage SBIR and STTR awards for your small business R&D project.

Both the SBIR and STTR programs offer a wide cross-section of Federal research and development funding awards in a variety of fields. Their common goal is to create new technologies that will solve America's most important scientific and technical challenges.

Each year, the Department of Defense and other federal agencies gather together along with a team of national experts to educate the public about these financing opportunities and guide potential applicants through each phase of the SBIR and STTR programs.

Contact: Delebarre & Associates, Sharon DelaBarre - sharon@dbamlg.com - Phone: 360-683-5742

6.0 Resources

The US Department of Energy has published two useful publications, From Invention to Innovation (order number, DOE/GO-10099-810) and Making the Licensing Decision (order number DOE/GO-10098-667). To order your copies call 1-800-862-2086 or use the Internet Clearinghouse at www.oit.doe.gov/clearinghouse

Book--Business Planning for Scientists and Engineers, Dr. Jenny Servo. This books provides guidance in the area of commercialization planning and development. To order a copy of this book, contact Dawnbreaker Press, (585) 594-0025. Cost: Approximately $45.00.

National Consulting Firms that Specialize in Commercialization Planning & Development. Montana's SBIR Program acknowledges that other consulting firms exist, but lists these three firms because the program has worked with them on past news stories and seminars.

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More information can also be found at the SBIR agency web sites.